

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An optical transmission line comprising:
an optical transmission fiber having a chromatic dispersion of +4 to +10
 $\text{ps}\cdot\text{nm}^{-1}\cdot\text{km}^{-1}$ and a dispersion slope of 0 to +0.04 $\text{ps}\cdot\text{nm}^{-2}\cdot\text{km}^{-1}$ at the 1550 nm
wavelength and installed in a relay section; and
a module made of a dispersion compensating optical fiber having a chromatic dispersion
of -40 $\text{ps}\cdot\text{nm}^{-1}\cdot\text{km}^{-1}$ or less and a dispersion slope of -0.10 $\text{ps}\cdot\text{nm}^{-2}\cdot\text{km}^{-1}$ or less at the 1550 nm
wavelength,
wherein said dispersion compensating optical fiber has a length that is sufficient to
substantially compensate the chromatic dispersion of said optical transmission fiber at the 1550
nm wavelength and loss of said module at the ~~1500~~ 1550 nm wavelength is not more than
0.035dB per unit kilometer of said optical transmission fiber.
2. (Original) An optical transmission line according to claim 1, wherein said optical
transmission fiber as a dispersion slope of +0.01 to +0.03 $\text{ps}\cdot\text{nm}^{-2}\cdot\text{km}^{-1}$.
3. (Original) An optical transmission line according to claim 1, wherein said optical
transmission fiber has an effective area of 45 μm^2 or more at the 1550 nm wavelength.
4. (Original) An optical transmission line according to claim 1, wherein said
dispersion compensating optical fiber has a chromatic dispersion of -80 $\text{ps}\cdot\text{nm}^{-1}\cdot\text{km}^{-1}$ or less and
a dispersion slope of -0.20 $\text{ps}\cdot\text{nm}^{-2}\cdot\text{km}^{-1}$ or less.

5. (Original) An optical transmission line according to claim 4, wherein said dispersion compensating optical fiber has a chromatic dispersion of $-100 \text{ ps} \cdot \text{nm}^{-1} \cdot \text{km}^{-1}$ or less.

6. (Previously Presented) An optical transmission system comprising:
an optical transmission fiber having a chromatic dispersion of $+4$ to $+10 \text{ ps} \cdot \text{nm}^{-1} \cdot \text{km}^{-1}$ and a dispersion slope of 0 to $+0.04 \text{ ps} \cdot \text{nm}^{-2} \cdot \text{km}^{-1}$ at the 1550 nm wavelength and installed in a relay section;

a module made of a dispersion compensating optical fiber having a chromatic dispersion of $-40 \text{ ps} \cdot \text{nm}^{-1} \cdot \text{km}^{-1}$ or less and a dispersion slope of $-0.10 \text{ ps} \cdot \text{nm}^{-2} \cdot \text{km}^{-1}$ or less at the 1550 nm wavelength;

a transmitter; and

a receiver, wherein said dispersion compensating optical fiber has a length that is sufficient to substantially compensate the chromatic dispersion of said optical transmission fiber at the 1550 nm wavelength and loss of said module at the 1550 nm wavelength is not more than 0.035 dB per unit kilometer of said optical transmission fiber.

7. (Cancelled).

8. (Cancelled).

9. (New) An optical transmission line comprising:

an optical transmission fiber having a chromatic dispersion of $+4$ to $+10 \text{ ps}\cdot\text{nm}^{-1}\cdot\text{km}^{-1}$ and a dispersion slope of 0 to $0.04 \text{ ps}\cdot\text{nm}^{-2}\cdot\text{km}^{-1}$ at the 1550 nm wavelength and installed in a relay section; and

a module made of a dispersion compensating optical fiber having a chromatic dispersion of $-40 \text{ ps}\cdot\text{nm}^{-1}\cdot\text{km}^{-1}$ or less and a dispersion slope of $-0.10 \text{ ps}\cdot\text{nm}^{-2}\cdot\text{km}^{-1}$ or less at the 1550 nm wavelength,

wherein an average chromatic dispersion of the optical transmission line is not less than -2 ps/nm/km and not more than 2 ps/nm/km from $1.5 \text{ }\mu\text{m}$ to $1.6 \text{ }\mu\text{m}$ inclusive.

10. (New) An optical transmission line according to claim 9, wherein the average chromatic dispersion of the optical transmission line is not less than -1 ps/nm/km and not more than 1 ps/nm/km from $1.5 \text{ }\mu\text{m}$ to $1.6 \text{ }\mu\text{m}$ inclusive.

11. (New) An optical transmission line according to claim 10, wherein said optical transmission fiber has a dispersion slope of $+0.01$ to $+0.03 \text{ ps}\cdot\text{nm}^{-2}\cdot\text{km}^{-1}$.

12. (New) An optical transmission line according to claim 10, wherein said optical transmission fiber has an effective area of $45 \text{ }\mu\text{m}^2$ or more at the 1550 nm wavelength.

13. (New) An optical transmission line according to claim 10, wherein said dispersion compensating optical fiber has a chromatic dispersion of $-80 \text{ ps}\cdot\text{nm}^{-1}\cdot\text{km}^{-1}$ or less and a dispersion slope of $-0.20 \text{ ps}\cdot\text{nm}^{-2}\cdot\text{km}^{-1}$ or less.

14. (New) An optical transmission line according to claim 13, wherein said dispersion compensating optical fiber has a chromatic dispersion of $-100 \text{ ps} \cdot \text{nm}^{-1} \cdot \text{km}^{-1}$ or less.